

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-013015**Date Inspected:** 01-Apr-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

CWI Inspector: Mr. Lv Li Qing

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

**OBG Bay 13**

ABF representative Mr. Wang Heng informed this QA Inspector that ZPMC has used plywood to fabricate a mockup assembly of some of the components that will be fabricated as part of OBG segment 13, and this will be constructed using 75 mm thick and 100 mm thick plates. Mr. Wang Heng informed this QA Inspector that ZPMC has also staged some of these plates on the floor of OBG bay 13. See the photograph below for additional information.

**OBG Bay 14**

This QA Inspector observed ZPMC welder Mr. Liu Ming, stencil 044790 is using flux cored welding procedure WPS-345-FCAW-2G(2F)-Repair to make OBG segment 12CE, deck plate DP3016-001-021. This weld repair is being made due to ultrasonic rejections and is documented on a temporary repair document. This deck plate weld is being made near the center of OBG Bay 14. This QA Inspector observed a welding current of approximately

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## WELDING INSPECTION REPORT

( Continued Page 2 of 3 )

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295 amps and 34 volts. This QA Inspector observed that Mr. Liu Ming appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhang Qing Quang stencil 044774 is using flux cored welding procedure WPS-345-FCAW-2G(2F)-Repair to make OBG segment 12CE, deck plate DP3016-001-012. This weld repair is being made due to ultrasonic rejections and is documented on a temporary repair document. This deck plate weld is being made near the center of OBG Bay 14. This QA Inspector observed a welding current of approximately 315 amps and 30.0 volts. This QA Inspector observed that Mr. Zhang Qing Quang appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Yuan Wensong, stencil 055491 is using flux cored welding process to weld a temporary attachment lifting eye on the exterior surface of corner assembly CA3003 which is to be installed at OBG Segment 12BE. This QA Inspector observed the base material had been preheated prior to welding. This QA Inspector observed that Mr. Yuan Wensong appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Zhao Jibo, stencil 055564 is using flux cored welding procedure WPS-B-T-2132 to make OBG floor beam to bottom plate weld SEG3002F-039 through -058. These welds are in OBG segment 12AE near panel point 111.5. This QA Inspector observed a welding current of approximately 320 amps and 34 volts. This QA Inspector observed that Mr. Zhao Jibo appears to be certified to make this weld and the base material is being preheated with a torch prior to welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Hong Yong Li, stencil 044801 is using flux cored welding procedure WPS-B-T-2132 to make OBG floor beam to bottom plate weld SEG3002G-039 through -055. These welds are in OBG segment 12AE near panel point 111.5. This QA Inspector observed a welding current of approximately 320 amps and 30 volts. This QA Inspector observed that Mr. Hong Yong Li appears to be certified to make this weld and the base material is being preheated with a torch prior to welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Jin Chen Mao, stencil 058551 has recently used flux cored welding procedure WPS-B-T-2232-TC-U4b-F to make OBG weld SEG3002P-057 at OBG segment 12AE panel point 109. ZPMC QC has recorded a welding current of 305 amps and 30.5 volts. This QA Inspector observed that Mr. Jin Chen Mao appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Dan Deyin, stencil 044795 has recently used flux cored welding procedure WPS-B-T-2232-TC-U4b-F to make OBG weld SEG3002R-055 at OBG segment 12AE panel point 109. ZPMC QC has recorded a welding current of 310 amps and 31.1 volts. This QA Inspector observed that Mr. Dan Deyin appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Hong Liang, stencil 200113 has recently used shielded metal

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## WELDING INSPECTION REPORT

( Continued Page 3 of 3 )

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welding process WPS-B-P-2214-FCM-1 to make OBG segment 12AE weld SEG3001H-041 at panel point PP111.

This QA Inspector observed QC has measured a welding current of 159 amps and Mr. Hong Liang appears to be certified to make this weld 4G position (overhead) weld. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wu Wanyong, stencil 050242 has recently used flux cored welding procedure WPS-B-T-2133 to make OBG weld SEG3001L-014. This weld is in OBG segment 12AE near panel points 110. This QA Inspector observed QC has recorded welding current of 217 amps and 25.2 volts. This QA Inspector observed that Mr. Wu Wanyong appears to be certified to make this weld. Items observed on this date appeared to generally comply with applicable contract documents.



### Summary of Conversations:

See Above.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Dawson,Paul	Quality Assurance Inspector
<b>Reviewed By:</b>	Carreon,Albert	QA Reviewer

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